

Indiscriminate use of antibiotics leads to rise in drug-resistant superbugs

Without conducting any test to identify the pathogen, many doctors prescribe them to patients

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INDISCRIMINATE use of antibiotics has resulted in the formation of superbugs which are resistant to some of the commonly used drugs against bacterial infection. The most easily identifiable drug in the list is Azithromycin, an antibiotic used for infections of the ears, lungs, sinuses, skin, throat, and reproductive organs, according to a recent report by the health department.

The other commonly used antibiotics such as Ampicillin, Cephalosporins, Ciprofloxacin, Meropenem and Colistin have also found some levels of resistance according to the 'antibiogram' released by the state on November 10. Kerala is the first in the country to release the report listing antibiotics and the number of each species resistant to each.

Kerala is also the first state to have a state-level action plan and set a target to improve the optimum use of antibiotics. However the pandemic period saw the misuse of antibiotics increase. "We have cautioned against using Azithromycin for Covid patients. Yet it was widely used. Now it seems that almost all respiratory pathogens are resistant to Azithromycin," said Dr Kavita Raja, Professor and Head of Department of Microbiology, Sree Chitra Tirunal Institute for Medical Sciences and Technology



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antibiotics. Patients get access to antibiotics by way of prescription or they can directly purchase from the pharmacy without any prescription.

The main cause of fevers, diarrhoea and upper respiratory illnesses reported in the state are caused by viruses. But it has been found that many doctors prescribe antibiotics, which are useful only against infections caused by the bacteria, even without conducting any test to identify the pathogen.

"The prescription of medicine should be done after properly diagnosing the pathogen involved. Access to microbiology lab facilities is crucial. The lab cost is lesser when compared to the cost of antibiotics and the trouble caused due to misdiagnosis," said Dr Kavita Raja.

However, in the real world sit-

diagnostic tests. "The patients usually come to the doctor to get quick results. Some of them visit the doctor after a dose of self-prescribed antibiotics. The doctors in some cases are also unsure if the patient has come for a follow-up. So they do not bother for diagnostic tests and give blanket drugs to address all possible symptoms," said a physician.

"Kerala is far from achieving the target set by WHO globally and the state government itself-reaching 60 per cent share of 'Access' antibiotics (which are recommended for use as against the 'Watch' antibiotics which are to be used sparingly) by 2023. Much more needs to be done, especially in reducing antibiotic use for common upper respiratory infections which are mostly viral infections that do not need

from Boston University School of Public Health, USA.

Health experts have called for discreet use of antibiotics as antimicrobial resistance (AMR) can lead to more deaths. The World Health Organisation is observing World Antimicrobial Awareness Week 2022 (November 18 -24) to create awareness on the public health issue.

"Antimicrobial resistance is a public health issue and everyone should be aware of its problems. A prescription auditing can be easily done in our

system and it will help in controlling drug misuse. A discreet hospital admission policy would help in preventing hospital-acquired infections," said Dr P S Shajahan, a health activist and professor of Pulmonary Medicine at Government TD Medical College, Alappuzha. "We have only a handful of antibiotics available. When bacteria gain resistance to these drugs we do not have many options left," he added.

The antibiotics work by killing the bacteria that are sensitive to the drug. But the indiscriminate use leads to formation of drug-resistant bacteria. These superbugs can be transmitted from infected persons or from hospitals where there is an environment of high antibiotic pressure.

The AMR is already a public health concern because it has